



3 (a) Fig. 3.1 shows a kidney nephron and its associated blood vessels.

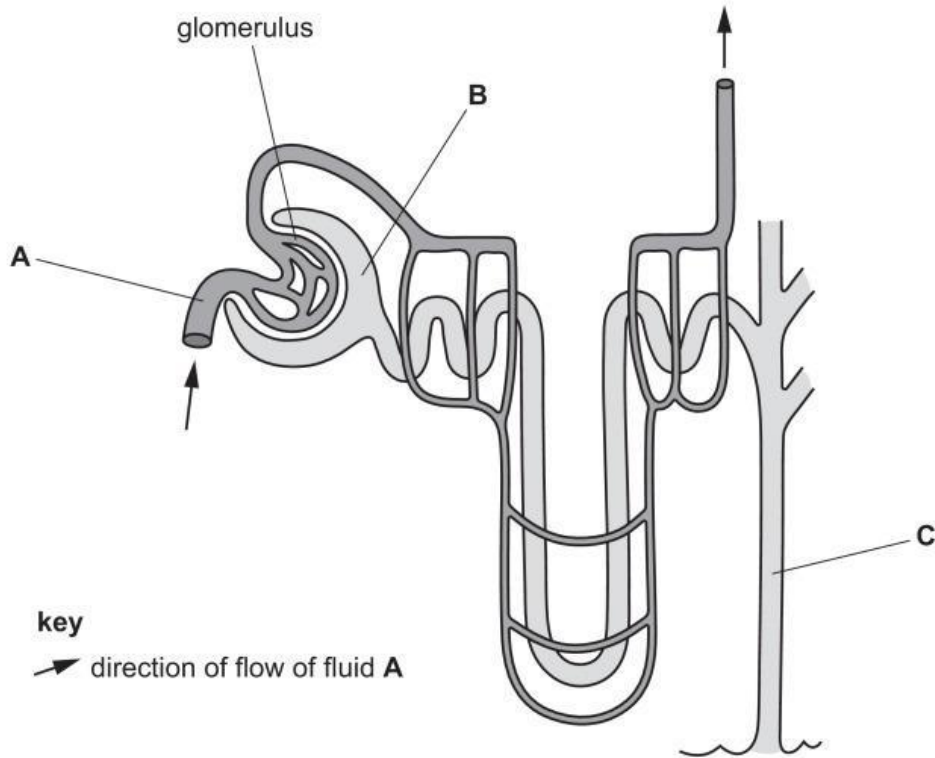


Fig. 3.1

The compositions of fluids A, B and C were analysed.

Table 3.1 shows the results for five components of the fluids.

Table 3.1

component	percentage concentration in fluid A	percentage concentration in fluid B	percentage concentration in fluid C
water	90.00	90.00	94.00
glucose	0.10	0.10	0.00
protein	8.00	0.00	0.00
urea	0.03	0.03	2.00
ions	0.72	0.72	1.50

(i) State the names of fluid A and fluid C in Fig. 3.1.

A

C

[2]





(c) A gene mutation may be involved in the development of type 1 diabetes.

(i) Describe what is meant by a gene mutation.

.....

.....

..... [2]

(ii) Outline the treatment of type 1 diabetes.

.....

.....

.....

.....

.....

.....

.....

..... [3]

[Total: 18]

DO NOT WRITE IN THIS MARGIN

